

REMEDIAL SITE ASSESSMENT DECISION - EPA NEW ENGLAND

Site Name: H & A Kaufman Realty Company EPA ID#: RID987479078

Address: Powder Hill Drive City: Lincoln State: RI

Refer to Report Dated: February 19, 1997 Report type: Mini-SI

Report developed by: Weston START

DECISION:				
X 1. Further F	Remedial Site As	ssessment under CERCLA (Supe	erfund) is <u>not</u> required because:	
X 1a.	site assessmer	alify for further remedial nt under CERCLA emedial Action Planned - NFRAP)	1b. Site may qualify for further action, but is deferred to:	
2. Further A	ssessment Nee	ded Under CERCLA:	2a. (optional) Priority: Higher	Lower
2b. Activity Type:				·
	Other:			
			<u> </u>	
		<u> </u>		•
DISCUSSIO	N/RATIONAI	LE:	•	
Low HRS score.			•	
		-	•	
Report Reviewed and Approved by:			. /	•
Sharon M. Hay		Signature:	a St. Okys	Date: 02/28/97
Site Decision Made by:		Oignature		
		$\wedge \mathcal{U}$	1 Date	
Sharon M. Hay	es	Signature:	-16.47	Date:02/28/97
FDA F # 0400 2			\bigcup	

REVISED MINI-SITE INSPECTION DATA SUMMARY FOR H & A KAUFMAN REALTY CO. (LOT 62) LINCOLN, RHODE ISLAND

CERCLIS No. RID987479078 TDD No. 95-10-0002A

Prepared by:

Roy F. Weston, Inc. (WESTON®)
Superfund Technical Assessment and Response Team (START)
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Burlington, MA 01803

17 April 1997

Region I START	
Reviewed and Approved:	
7. Muli For	4/17/97
Jack Padden	Date
Site Leader	
Mill	4/17/17
Joseph Schmidl	Date
Project Leader	
QA Review PE	4/21/97 Date
/ /	200

DISCLAIMER

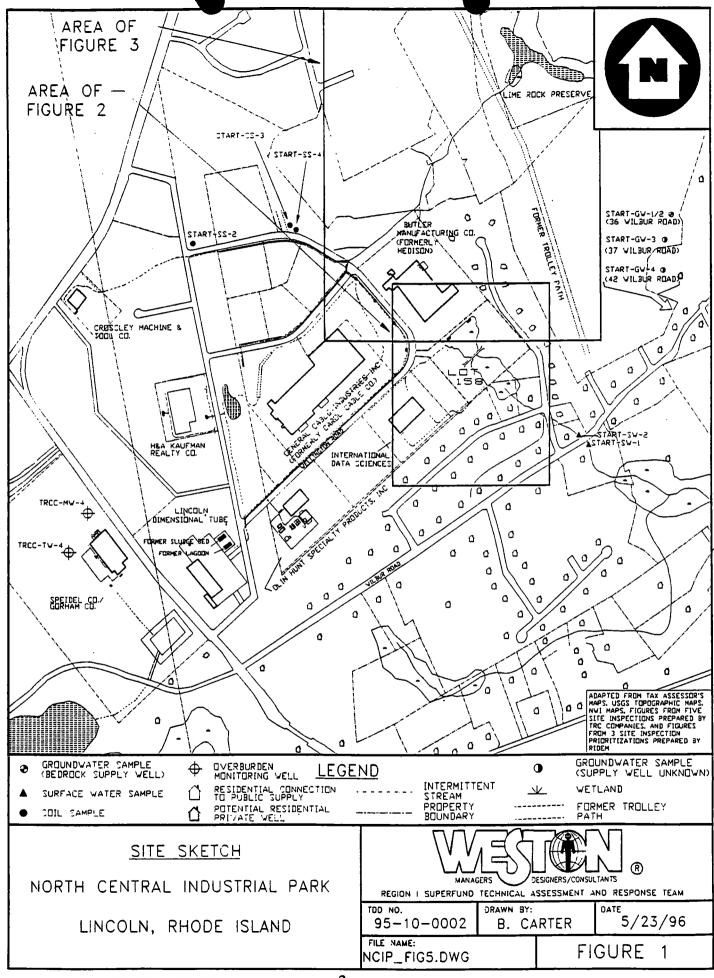
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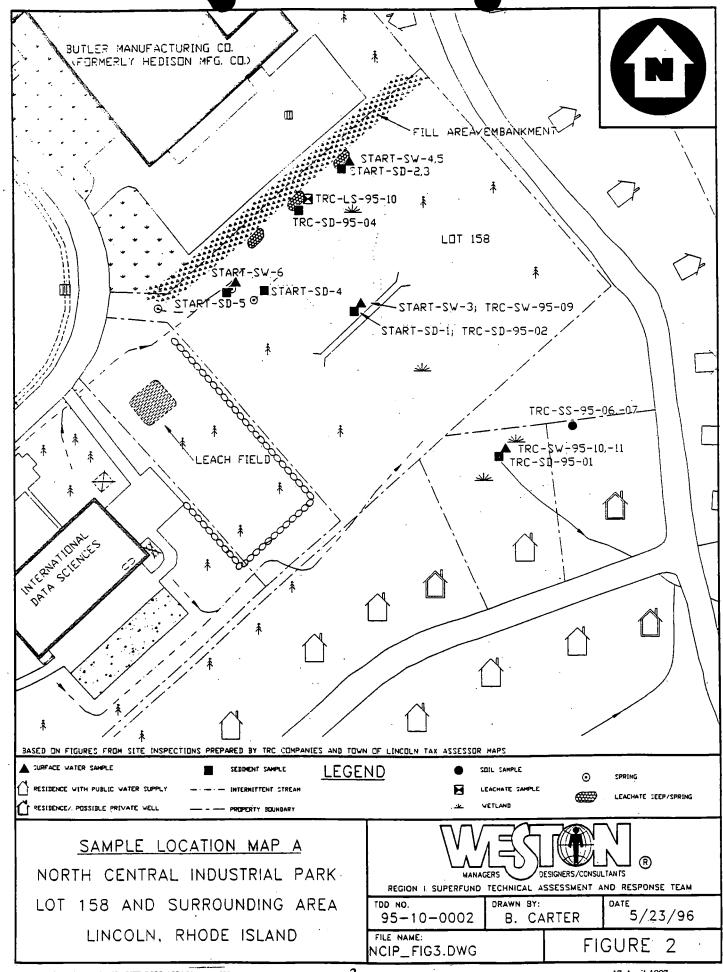
Revised Mini-Site Inspection Data Summary H & A Kaufman Realty Co. (Lot 62) Lincoln, Rhode Island CERCLIS No. RID987479078 TDD No. 95-10-0002A Work Order No. 11098-011-001-1254-70

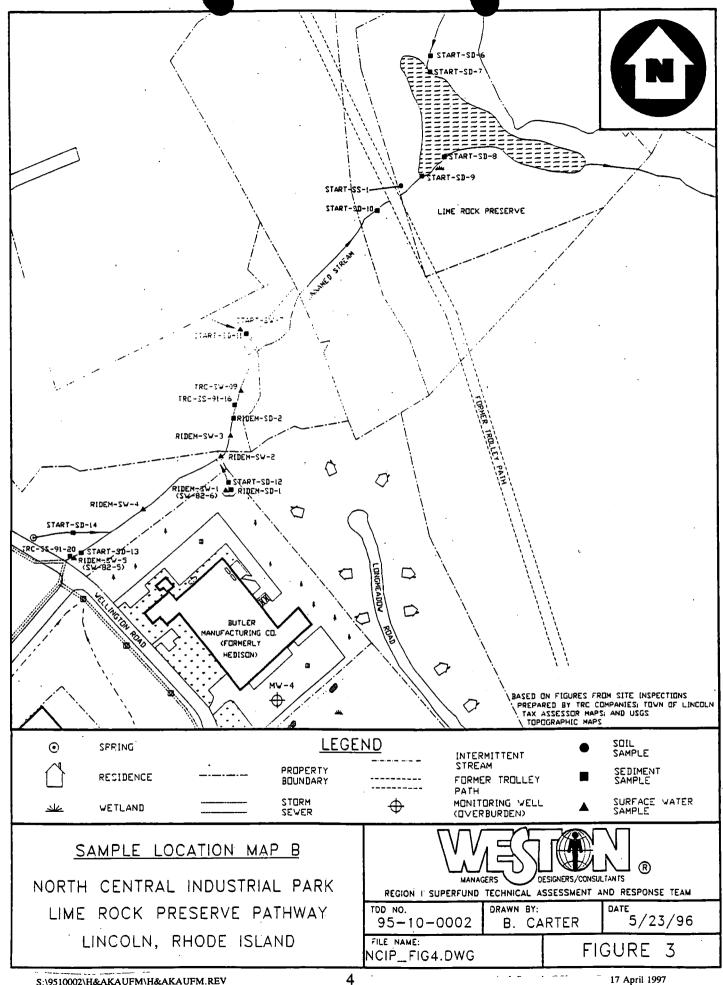
The Roy F. Weston, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) conducted environmental sampling on 18 June 1996 for the nine North Central Industrial Park Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites in Lincoln, Rhode Island, as part of a Mini-Site Inspection (Mini-SI). The samples collected by START personnel were summarized in a Trip Report submitted to EPA-New England on 9 July 1996. Analytical results for the surface water, drinking water, soil, and sediment samples collected during this sampling event have been reviewed by START personnel using EPA-New England criteria. Figures 1, 2, and 3 depict START sample locations.

The following tables summarize the organic compounds and inorganic elements detected through Contract Laboratory Program (CLP) analyses of START environmental samples. For each sample location, a compound or element is listed if it is detected at three times or greater than the matrix reference sample concentration. However, if the compound or element is not detected in the reference sample, the reference sample's quantitation limit (SQL) (for organic analyses) or sample detection limit (SDL) (for inorganic analyses) is used as the reference value. These compounds or elements are listed if they occurred at a value equal to or greater than the reference sample's SQL or SDL and are designated by their approximate relative concentration above these values.

A complete summary of sample locations and analytical results of START environmental samples including quantitation and detection limits is presented in Attachment A. Sample results quantified with a "J" on analytical tables are considered approximate because of limitations identified during CLP data validation. In addition, organic sample results reported at concentrations below quantitation limits and confirmed by mass spectrometry are also qualified by a "J" and considered approximate.







START collected samples from five areas which include (1) Lot 158; (2) the stream that drains Lot 158, (3) the unnamed stream, its tributaries, and Lime Rock Preserve; (4) drinking water wells along Wilbur Road; and (5) background soil locations within the industrial park. All of these samples are potentially relevant to the H & A Kaufman Realty Co. property.

Four surface water samples (SW-3, SW-4, SW-5, and SW-6) were collected on Lot 158. Sample SW-7 is the reference sample. SW-7 was collected from a tributary to the unnamed stream that flows to the pond within Lime Rock Preserve. No volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), or pesticides/polychlorinated biphenyls (Pest/PCBs) were detected in samples SW-3 through SW-5. The inorganic results are summarized in Table 1.

Table 1
Summary of Analytical Results
Lot 158 Surface Water Sample Analysis
North Central Industrial Park

Sample Location	Compound/ Element	Sample Concentration	Reference Concentration ¹	Comments
SW-03	INORGANICS			
(AMC69) (MAHZ88)	Cobalt	58.8 μg/L	1.0 J μg/L	58.8 × Ref
	Cyanide	17.9 μg/L	1.6 μg/L	11.2 × Ref
	Iron	69,400 J μg/L	3,970 J μg/L	17.5 × Ref
	Manganese	8,260 μg/L	1,440 μg/L	5.7 × Ref
	Nickel	38.0 μg/L	4.8 μg/L	7.9 × Ref
	Selenium	1.6 J μg/L	1.4 U μg/L	1.1 × SDL
	Silver	0.79 J μg/L	0.6 U μg/L	1.3 × SDL
SW-04 ²	INORGANICS			
(AMC70) (MAHZ89)	Antimony	5.1 μg/L	2.3 U μg/L	$2.2 \times SDL$
	Arsenic	51.5 J μg/L	1.8 UJ μg/L	28.6 × SDL
	Barium	487 μg/L	103 μg/L	4.7 × Ref
	Cobalt	61.8 μg/L	1.0 U μg/L	61.8 × SDL
	Iron	79,600² J μg/L	3,970 J μg/L	20.1 × Ref
	Manganese	5,470 μg/L	1,440 μg/L	3.8 × Ref
	Nickel	61.8 μg/L	4.8 μg/L	12.9 × Ref
	Selenium	12.8 μg/L	1.4 U μg/L	9.1 × SDL
	Silver	0.64 J μg/L	0.6 U μg/L	1.1 × SDL
	Vanadium	28.1 μg/L	2.5 μg/L	11.2 × Ref
	Zinc	135 J μg/L	23.3 UJ μg/L	5.8 × SDL

Table 1 Summary of Analytical Results Lot 158 Surface Water Sample Analysis North Central Industrial Park (Concluded)

Sample Location	Compound/ Element	Sample Concentration	Reference Concentration ¹	Comments				
SW-05 ²	INORGANICS	INORGANICS						
(AMC71) (MAHZ90)	Arsenic	17.4 μg/L	1.8 UJ μg/L	9.7 × SDL				
	Cobalt	41.0 μg/L	1.0 U μg/L	41 × SDL				
	Iron	264,000 ² J μg/L	3,970 J μg/L	66.5 × Ref				
	Manganese	4,700 μg/L	1,440 μg/L	3.3 × Ref				
	Nickel	34.4 μg/L	4.8 μg/L	7.2 × Ref				
	Selenium	3:0 μg/L	1.4 U μg/L	2.1 × SDL				
	Silver	0.70 J μg/L	0.6 U μg/L	1.2 × SDL				
	Vanadium	11.3 μg/L	2.5 μg/L	4.5 × Ref				
SW-06	INORGANICS							
(AMC72) (MAHZ91)	Arsenic	2.6 J μg/L	1.8 UJ μg/L	1.4 × SDL				
	Cobalt	107 μg/L	1.0 U μg/L	107 × SDL				
	Cyanide	12.5 μg/L	1.6 μg/L	7.8 × Ref				
	Iron	21,100 J μg/L	3,970 J μg/L	5.3 × Ref				
	Lead	21.3 μg/L	1.3 UJ μg/L	16.4 × SDL				
	Mercury	3.7 μg/L	0.1 U μg/L	37 × SDL				
	Nickel	60.2 μg/L	4.8 μg/L	12.5 × Ref				
	Vanadium	18.5 μg/L	2.5 μg/L	7.4 × Ref				
	Zinc	282 J μg/L	23.3 UJ μg/L	12.1 × SDL				

Note: The above table lists compounds detected significantly above a reference value but does not separate the influence of the IDS properties and the Hedison property.

1 = Samples SD-06 and SD-07 are the reference samples.

2 = Samples SW-4 and SW-5 are duplicates. The significant difference in the results of the two samples is likely because of variations in the high sediment load present in the water collected.

Ref = Reference value.

= Quantitation is approximate due to limitations identified during the quality control review.

U = Indicates the sample was analyzed but not detected and reports the detection value.

 $\mu g/L$ = Micrograms per liter. SDL = Sample Detection Limit. Five sediment samples (SD-1 through SD-5) were collected on Lot 158. Sample SD-6 and SD-11 were chosen as reference samples collected from tributaries to the pond within Lime Rock Preserve and unnamed stream, respectively. No VOCs or Pest/PCBs were detected in samples SD-1 through SD-5. One polycyclic aromatic hydrocarbon (PAH) was detected but at a concentration below the CRQLs and reference concentration (PAHs have not been attributed to waste disposal practices at either the IDS properties or Hedison Mfg. Co.). All non-detects for samples SD-1 through SD-5 were rejected because of high moisture content. Inorganic sample results are summarized in the Table 2 (no inorganics were detected significantly above background in sample SD-5).

Table 2
Summary of Analytical Results
Lot 158 Sediment Samples Analysis
North Central Industrial Park

Sample Location	Compound/ Element	Sample Concentration		Reference Concentration ¹		Comments	
SD-1	INORGANICS						
(AMC53) (MAHZ72)	Iron	428,000	J mg/kg	59,500	mg/kg	7.2 × Ref	
SD-2 ²	INORGANICS						
(AMC54) (MAHZ73)	Iron	453,000	J mg/kg	59,500	mg/kg	7.6 × Ref	
	Selenium	12.3	J mg/kg	11.6	U mg/kg	1.1 × SDL	
SD-3 ²	INORGANICS						
(AMC55) (MAHZ74)	Iron	342,000	J mg/kg	59,500	mg/kg	5.7 × Ref	
SD-4	INORGANICS						
(AMC56) (MAHZ75)	Cobalt	837	J mg/kg	165	mg/kg	5.1 × Ref	

1 = SD-06 and SD-11 are the reference samples.

2 = SD-2 and SD-3 are duplicate samples.

Ref = Reference value.

J = Quantitation is approximate due to limitations identified during the quality control review.

U = Indicates the sample was analyzed but not detected and reports the detection value.

mg/kg = Milligram per kilogram. SDL = Sample Detection Limit.

Surface water samples SW-1 and SW-2 were collected near Wilbur Road from the stream that drains Lot 158. Sample SW-7 is the reference sample for SW-1 and SW-2 (Note: tetrachloroethene (5 J μ g/L) and 1,2-dichloroethene (4 J μ g/L) were detected in the reference sample [SW-7]). No VOCs, SVOCs, or Pest/PCBs were detected in the samples SW-1 and SW-2. The inorganic results are summarized in Table 3.

Table 3 Summary of Analytical Results of Surface Water Samples Collect from Downstream of Lot 158 North Central Industrial Park

Sample Location	Compound/ Element	Sample Concentration	Reference Concentration ¹	Comments
SW-01	INORGANICS			
(AMC67) (MAHZ86)	Cobalt	1.6 J μg/L	1.0 U μg/L	1.6 × SDL
SW-02	INORGANICS			-
(AMC68) (MAHZ87)	Cobalt	1.4 J μg/L	1.0 U μg/L	1.4 × SDL

1 = Samples SW-7 is the reference.

Ref = Reference value.

U = Quantitation is approximate due to limitations identified during the quality control review.

U = Indicates the sample was analyzed but not detected and reports the detection value.

 $\mu g/L$ = Micrograms per liter. SDL = Sample Detection Limit.

START collected two sediment samples, SD-13 and SD-10, along the unnamed stream that begins at the storm sewer system outfall, which is at the corner of Wellington Road and Carol Drive, and flows to the pond within Lime Rock Preserve. No VOCs were detected in either sample; one pesticide was detected in each sample (one did not meet the criteria for an observed release); two PAHs detected in SD-10 did not meet the criteria for observed release; 12 PAHs were detected in SD-13. Sediment samples SD-6 and SD-11 are the reference samples.

START collected sediment sample SD-14 from a tributary to the unnamed stream. This tributary begins at an apparent groundwater seep near Wellington Road, north of the storm sewer system outfall. This tributary is therefore expected to be heavily influenced by groundwater quality where the unnamed stream near the outfall is expected to be heavily influenced by surface water runoff from the industrial park. SD-14 was collected to investigate the contribution of groundwater contamination to any contamination along the unnamed stream or the pond within Lime Rock Preserve. Two VOCs and 14 SVOCs were detected in SD-14 (including dibenzofuran which was detected below the detection limit of the reference samples). 4,4'-DDD was detected below the reference value. SD-6 and SD-11 are the reference samples.

START collected sediment sample SD-12 from the drainage path that leads from the outfall pipe on the former Hedison Mfg. Co. property to the unnamed stream. No VOCs or Pest/PCBs were detected in SD-12, six PAHs were detected but did not meet the criteria for an observed release. Sediment samples SD-6 and SD-11 are reference samples.

START collected sediment samples SD-8 and SD-9 from the pond within Lime Rock Preserve near the discharge of the unnamed stream. Sediment samples SD-6, SD-7, and SD-11 are reference samples. No VOCs were detected in either sample. DDE was detected in SD-8 below the reference concentration. One and nine PAHs were detected in samples SD-8 and SD-9, respectively, all below the reference concentrations.

Table 4 summarizes the results of all START sediment samples collected along the Lime Rock Preserve drainage pathway.

Table 4
Summary of Analytical Results
Lime Rock Preserve Drainage Pathway Sediment Sample Analysis
North Central Industrial Park

Sample Location	Compound/ Element	Sample Concentration		Reference Concentration ¹		Comments		
UNNAMED STREAM								
SD-10	PESTICIDES/PCBS							
(AMC62) (MAHZ81)	Dieldrin ²	16	J μg/kg	10 U	J μg/kg	$1.6 \times SQL$		
	INORGANICS							
	Potassium	1,360	mg/kg	300 .	J mg/kg	4.5 × Ref		
SD-13	SVOCs							
(AMC65) (MAHZ84)	Phenanthrene ³	4,400	μg/kg	130 .	J μg/kg	33.8 × Ref		
	Fluoranthene ³	7,600	μg/kg	340 .	J μg/kg	22.4 × Ref		
	Pyrene ³	5,300	μg/kg	250 .	J μg/kg	21.2 × Ref		
	Benzo(a)anthracene ³	2,100	J μg/kg	990 t	J μg/kg	2.1 × SQL		
	Chrysene ³	3,000	J μg/kg	990 t	J μg/kg	3 × SQL		
	Benzo(b)fluoranthene ³	4,000	J μg/kg	110 .	J μg/kg	36.4 × Ref		
	Benzo(k)fluoranthene3	1,500	J μg/kg	530 L	J μg/kg	$2.8 \times SQL$		
	Benzo(a)pyrene ³	2,200	J μg/kg	530 U	J μg/kg	4.2 × SQL		
	Indeno(1,2,3-cd)pyrene ³	1,000	J μg/kg	990 t	J μg/kg	1 × SQL		
	Benzo(g,h,i)perylene ³	1,100	J μg/kg	990 t	J μg/kg	1.1 × SQL		
	INORGANICS							
	Copper	63	mg/kg	16.7	mg/kg	3.8 × Ref		
	Silver	57.3	mg/kg	4.0	mg/kg	14.3 × Ref		

Table 4 Summary of Analytical Results Lime Rock Preserve Drainage Pathway Sediment Sample Analysis North Central Industrial Park (Continued)

Sample Location	Compound/ Sample Concentration				Reference ncentration ¹	Comments				
	TRIBUTARY TO THE UNNAMED STREAM									
SD-14	VOCs									
(AMC66) (MAHZ85)	1,2-Dichloroethene	70	μg/kg	19	U μg/kg	$3.7 \times SQL$				
	Tetrachloroethene	300	μg/kg	19	U μg/kg	15.8 × SQL				
1	Trichloroethene	76	J μg/kg	19	U μg/kg	4 × SQL				
	SVOCs									
ı	Phenanthrene ³	2,100	μg/kg	530	U μg/kg	4 × SQL				
	Fluoranthene ³	2,300	μg/kg	340	J μg/kg	6.8 × Ref				
	Pyrene ³	3,300	μg/kg	250	J μg/kg	13.2 × Ref				
	Benzo(a)anthracene ³	2,100	μg/kg	990	Ü μg/kg	2.1 × SQL				
	Chrysene ³	2,300	μg/kg	990	U μg/kg	$2.3 \times SQL$				
	Benzo(b)fluoranthene ³	2,100	μg/kg	110	J μg/kg	19.1 × Ref				
	Benzo(k)fluoranthene3	800	μg/kg	530	U μg/kg	$1.5 \times SQL$				
	Benzo(a)pyrene ³	1,500	μg/kg	530	Ü μg/kg	$2.8 \times SQL$				
	Indeno(1,2,3-cd)pyrene ³	1,300	μg/kg	990	U μg/kg	1.3 × SQL				
	Benzo(g,h,i)perylene ³	1,400	μg/kg	990	U μg/kg	1.4 × SQL				
	INORGANICS									
	Potassium	954	mg/kg	453	U mg/kg	2.1 × SDL				
	HEDISON MFG	. CO. PRO	PERTY DRAI	NAGE I	DITCH					
SD-12	INORGANICS									
(AMC64) (MAHZ83)	Lead	251	mg/kg	48.5	J mg/kg	5.2 × Ref				
	Potassium	1,120	mg/kg	453	U mg/kg	2.5 × SDL				

Table 4 Summary of Analytical Results Lime Rock Preserve Drainage Pathway Sediment Sample Analysis North Central Industrial Park (Concluded)

Sample Location	Compound/ Sample Reference Element Concentration Concentration						Comments	
	POND WITHIN LIME ROCK PRESERVE							
SD-9	SD-9 INORGANICS							
(AMC61) (MAHZ80)	Potassium	3,660	mg/kg	453	J mg	g/kg	8.1 × Ref	

1 = Sample SD-06 and SD-11 are the references.

This pesticide met the criteria for observed release, but is likely attributable to routine application and not to disposal practices at any facility within the North Central Industrial Park.

PAHs were detected in 16 of 18 soil and sediment samples collected by START including background samples. However, the concentrations of the PAHs detected in SD-13 and SD-14 were significantly above background levels.

Ref = Reference value.

= Quantitation is approximate due to limitations identified during the quality control review.

U = Indicates the sample was analyzed but not detected and reports the detection value.

 μ g/kg = Micrograms per kilogram. mg/kg = Milligrams per kilogram.

SVOCs = Semivolatile organic compounds.

SQL = Sample Quantitation Limit SDL = Sample Detection Limit.

START collected drinking water samples from the private wells at 36 Wilbur Road (GW-1 and GW-2), 37 Wilbur Road (GW-3), and 42 Wilbur Road (GW-4). Samples GW-96-13 and GW-96-14 were collected by TRCC in 1993 from overburden or bedrock monitoring wells MW-4 (completed in the overburden) and TW-4 (completed in bedrock), respectively, and are used by START as reference samples. Both monitoring wells are on the Speidel Co./Gorham Co. property. No VOCs, SVOCs, or Pest/PCBs were detected any of the drinking water samples. The inorganic results are summarized in Table 5.

Table 5 Summary of Analytical Results Drinking Water Sample Analysis North Central Industrial Park

Sample Location	Compound/ Element	Sample Concentration		Reference Concentration ¹		Comments		
GW-1	INORGANICS							
(DAF060) (AMC74)	Calcium	49,200	μg/L	5,310	μg/L	9.3 × Ref		
(MAHZ93)	Potassium	4,910	μg/L	2,510	U μg/L	2.0 × SDL		
	Sodium	34,100	μg/L	3,070	J μg/L	11.1 × Ref		
GW-2	INORGANICS							
(DAF061) (AMC75)	Calcium	46,900	μg/L	5,310	μg/L	8.8 × Ref		
(MAHZ94)	Potassium	4,670	μg/L	2,510	U μg/L	1.9 × SDL		
	Sodium	32,300	μg/L	3,070	J μg/L	10.5 × Ref		
GW-3	INORGANICS							
(DAF062) (AMC76)	Calcium	50,900	μg/L	5,310	μg/L	9.6 × Ref		
(MAHZ95)	Potassium	4,200	μg/L	2,510	U μg/L	1.7 × SDL		
	Sodium	21,500	μg/L	3,070	J μg/L	7 × Ref		
GW-4	INORGANICS							
(DAF063) (AMC77) (MAHZ96)	Calcium	27,200	μg/L	5,310	μg/L	5.1 × Ref		
	Соррег	68.2	μg/L	18.1	J μg/L	3.8 × Ref		
	Potassium	2,770	μg/L	2,510	U μg/L	1.1 × SDL		
	Sodium	17,800	μg/L	3,070	J μg/L	5.8 × Ref		
	Zinc	816	J μg/L	85.5	μg/L	9.5 × Ref		

Samples GW-96-13 and GW-96-14 were collected by TRCC/ARCS in 1993 from overburden or bedrock monitoring wells MW-4 (completed in the overburden) and TW-4 (completed in bedrock), respectively, and are used by START as reference samples.

Ref = Reference value.

J = Quantitation is approximate due to limitations identified during the quality control review.

U = Indicates the sample was analyzed but not detected and reports the detection value.

 μ g/L = Micrograms per liter. SDL = Sample Detection Limit. Soil sample SS-1 was collected from the east side of the former trolley path near were the unnamed stream enters the pond within Lime Rock Preserve. START observed a material that appeared to be coal slag on the embankment supporting the former trolley path. Sample SS-1 was collected to investigate weather any substances detected in the pond may be attributable to runoff from the embankment rather than the North Central Industrial Park. No VOCs or Pest/PCBs were detected in SS-1 Naphthalene, 2-methylnaphthalene, and seven PAHs were detected in sample SS-1 below the CRQLs and did not meet the criteria for an observed release. Soil samples SS-2, SS-3, and SS-4 are reference samples.

ATTACHMENT A START ANALYTICAL DATA